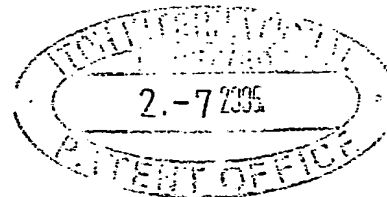


PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)



Applicant's or agent's file reference R05159PCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/JP2005/018209	International filing date (day/month/year) 26/09/2005	(Earliest) Priority Date (day/month/year)
Applicant RICOH COMPANY, LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 5

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

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Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

An optical disk recording method on the write-once or re-writable optical medium comprising the steps of :identifying the media as write-once or re-writable; performind optimal power calibration procedure in the power calibration area of the disk;and switching to the constant linear velocity control during writing data to the write-once disk; or switching to constant angular velocity control in case of writing to the re-writable medium.The power of the light beam during the writing procedure is set according to the calculations received in the power calibration procedure.In another embodiment,after sensing the write-once medium, if the recording data takes place in the location which is not the most inner radial location of the disk,the method of recording data checks whether the radial distance between the location were recording isgoging to place and the most inner data recording location on the disk is less then a half of the distance between the most distant and most inner radial locations of the disk , and then on a base of the result the CAV or CLV of control is applied to control the spin of the disk during recording data the on the writ-once medium.

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A. CLASSIFICATION OF SUBJECT MATTER G11B7/0045 G11B19/20		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) G11B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 779 621 A (FUJITSU LIMITED) 18 June 1997 (1997-06-18) column 2, line 19 - column 4, line 46 column 33, line 43 - column 35, line 12 column 41, line 11 - column 42, line 41 figures 34-48	1-16
Y	----- <u>US 2002/141308 A1 (MATSUMOTO KEISHI)</u> 3 October 2002 (2002-10-03) the whole document	1-16
A	----- <u>US 2003/048713 A1 (SUZUKI HARUYUKI)</u> 13 March 2003 (2003-03-13) paragraph '0016! - paragraph '0028! paragraph '0047! - paragraph '0069! figures 1-5	1-16
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex. </div>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>* Special categories of cited documents :</p> <p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>* & * document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search <div style="text-align: center; font-weight: bold;">20 December 2005</div>		Date of mailing of the international search report <div style="text-align: center; font-weight: bold;">02/02/2006</div>
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer <div style="text-align: center; font-weight: bold;">Pacholec, D</div>

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 1-16

The application does not meet the requirements of Article 6 PCT, because claims 1-16 are not clear. The independent claims 1 and 9 use vague and unclear expressions (which are also used in the description of the application), leaving the reader in doubt as to the meaning of the technical features to which they refer.

The expression "recording velocity" (cl. 1, 1. 8 and cl. 9, 1.12) has been understood as the velocity of the disk (linear or angular) set and controlled at the time of starting writing information to the disk (cl.1 1.9 and cl.9, 1.12-13). Next, the following parts of the claims (cl.1, 1.9-11 and cl.9, 1.13-15) saying: "when the write once of information is carried out on the optical disk where the write once or rewriting can be carried out..." is totally unclear. It is not understood how can be first suggested writing of the write once information on the write once disk, and then, on the same disk, teaching that write once or rewriting can be carried out.

Therefore the search was performed on the claims in the light of the description (page 18-22 and figures 5,6).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1-16
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2005/018209

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0779621	A	18-06-1997	CN 1154550 A	16-07-1997
			JP 3631311 B2	23-03-2005
			JP 9167428 A	24-06-1997
			KR 209075 B1	15-07-1999
			US 6026068 A	15-02-2000
US 2002141308	A1	03-10-2002	JP 2002298356 A	11-10-2002
US 2003048713	A1	13-03-2003	JP 2003085759 A	20-03-2003